

APH: **460.1** CDL: **12.293**

GPH: **514.3** CertNo: **PER108**

**BOAT**

Class **SYDNEY 46**  
Designer **MURRY/BURNS/DOVELL**  
Builder **SYDNEY YACHTS, AUS**  
Age date **06/1998**  
Series date **06/1998**  
Offset file **PER4698.off**  
Data file **PER4698**

**HULL**

Length Overall **14.270 m**  
Maximum Beam **4.060 m**  
Draft **3.043 m**  
Displacement **8,173 kg**  
DLR **4.4671**  
IMS Division **Cruiser/Racer**  
Dynamic Allowance **0.009%**  
Age Allowance **0.487%**

**PROPELLER**

Installation **Strut**  
Type **Folding 2 blades**  
Diameter **0.450m**

**CREW**

Maximum weight **850 kg**  
Minimum weight **638 kg** \* when applied  
Non Manual Power **No**  
Crew Arm Extension

**SAIL AREAS (m<sup>2</sup>)**

	Measured	Rated
Mainsail	<b>71.97</b>	<b>73.70</b>
Headsail Luffed	<b>51.20</b>	<b>51.20</b>
Headsail Flying		
Symmetric		
Asymmetric	<b>185.71</b>	<b>185.71</b>
<i>(1 asymmetric(s) with SHW/SFL &lt; 85%)</i>		

**STORM SAIL AREAS (m<sup>2</sup>)**

Trysail **19.28**  
Storm Jib **18.61**  
Heavy Weather Jib **50.23**

**SAIL LIMITS**

Headsails **7**  
Spinnakers **5**

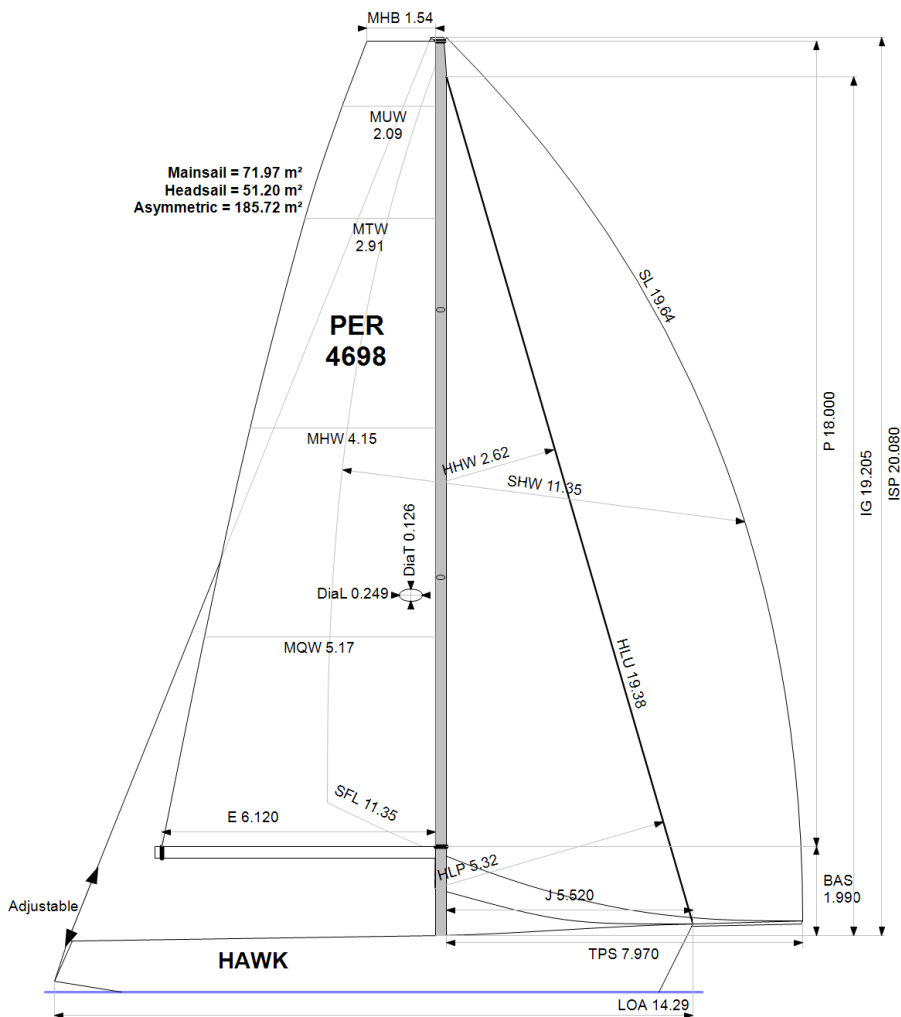
**STABILITY**

Righting Moment **292.8 kg·m**  
Stability Index **134.5**

**COMMENTS**

Modified keel and new bowsprit 07/11 modified bulb 09/15 new OFFSET

*The owner and any other person in charge is responsible that boat is complying with her certificate in accordance with RRS 78.1 and ORC Rule 304.*



Rated boat velocities in knots							
Wind Velocity	6 kt	8 kt	10 kt	12 kt	14 kt	16 kt	20 kt
Beat Angles	43.0°	41.4°	39.4°	38.4°	37.6°	36.6°	36.4°
Beat VMG	4.19	5.15	5.69	5.92	6.07	6.26	6.34
52°	6.38	7.68	8.19	8.37	8.46	8.59	8.75
60°	6.75	7.97	8.42	8.61	8.73	8.82	9.08
75°	7.29	8.19	8.64	8.98	9.19	9.34	9.62
90°	7.53	8.47	8.89	9.19	9.56	9.88	10.25
110°	7.27	8.39	9.01	9.63	10.13	10.52	11.25
120°	6.87	8.16	8.84	9.52	10.19	10.88	12.03
135°	6.02	7.54	8.47	9.14	9.89	10.76	12.66
150°	5.07	6.43	7.62	8.43	8.98	9.58	11.28
Run VMG	4.39	5.56	6.60	7.33	7.78	8.29	9.77
Gybe Angles	143.0°	144.8°	148.9°	152.0°	150.2°	148.0°	143.5°



International  
Certificate  
2022

Boat  
**HAWK**  
PER 4698

Asociacion de Vela Oceanica  
del Peru - AVOP  
Roberto Peschiera - Rating Officer  
peschiera56@gmail.com



Time Allowances in secs/NM							
Wind Velocity	6 kt	8 kt	10 kt	12 kt	14 kt	16 kt	20 kt
Beat VMG	858.8	699.6	632.9	607.6	593.3	575.0	567.5
52°	564.0	468.9	439.7	430.3	425.3	419.1	411.5
60°	533.1	451.8	427.5	418.1	412.4	408.3	396.5
75°	493.8	439.3	416.6	400.9	391.5	385.4	374.2
90°	477.8	424.9	405.1	391.6	376.7	364.2	351.4
110°	494.9	429.2	399.4	373.8	355.4	342.1	320.0
120°	524.1	441.0	407.1	378.3	353.2	330.9	299.2
135°	598.2	477.3	425.0	394.0	363.9	334.5	284.4
150°	709.7	560.2	472.4	427.3	400.8	375.9	319.3
Run VMG	819.5	646.9	545.5	491.3	462.7	434.1	368.7
Selected Courses							
Windward / Leeward	839.1	673.2	589.2	549.4	528.0	504.5	468.1
All purpose	636.5	525.0	474.1	447.6	430.1	412.9	386.9

Single Number Scoring Options		
Course	Time On Distance	Time On Time
Windward / Leeward	571.4	1.0500
All purpose	460.1	1.3041



Data in meters/kilograms (Metric)

**HULL AND APPENDAGES (Lightship Trim)**

Class	<b>SYDNEY 46</b>	LOA	<b>14.270</b>	VCGD	<b>-0.228</b>
Measurement	<b>17/06/2010</b>	Max. Beam	<b>4.060</b>	VCGM	<b>-0.345</b>
HIN		Draft	<b>3.043</b>	RM Measured (kg·m)	<b>292.8</b>
Plan review		Displacement	<b>8,173</b>	RM Default (kg·m)	<b>277.7</b>
Hull construction	<b>Cored</b>	Wetted area	<b>37.15</b>	Limit of positive stability(°)	<b>132.0</b>
Aramid Hull Core	<b>No</b>	IMS L	<b>12.507</b>	Stability Index	<b>134.5</b>
Carbon Rudder	<b>Yes</b>	LSM0	<b>12.230</b>		
Light stanchions	<b>No</b>	Acc. length	<b>13.195</b>		
Trim tab	<b>No</b>	Sink (kg/mm)	<b>27.48</b>		

**PROPELLER**

Propeller Type	<b>Folding 2 blades</b>						
Installation	<b>Strut</b>	PRD	<b>0.450</b>	EDL	<b>1.620</b>	ST3	<b>0.180</b>
Twin screw	<b>No</b>	PBW	<b>0.116</b>	ST1	<b>0.043</b>	ST4	<b>0.113</b>
Hydro generator	<b>No</b>	PIPA	<b>0.0038</b>	ST2	<b>0.181</b>	ST5	<b>0.270</b>

**RIG**

Forestay tension	<b>Aft</b>	P	<b>18.000</b>	E	<b>6.120</b>	Flying Headsail Foretriangles Id    ISP    TPS <b>3    19.295</b>
Inner stay	<b>None Fitted</b>	IG	<b>19.205</b>	J	<b>5.520</b>	
Carbon mast	<b>Yes</b>	ISP	<b>20.080</b>	BAS	<b>1.990</b>	
Headsail furler	<b>No</b>	MDT1	<b>0.126</b>	FSD	<b>0.043</b>	
Mainsail furler	<b>No</b>	MDL1	<b>0.249</b>	SFJ	<b>0.000</b>	
Articulated bowsprit	<b>No</b>	MDT2	<b>0.107</b>	SPL		
Non-circular rigging	<b>No</b>	MDL2	<b>0.190</b>	WPL		
Fiber rigging	<b>No</b>	TL	<b>0.715</b>	TPS	<b>7.970</b>	
Runners/Checkstays	<b>0</b>	MW	<b>0.211</b>	BD	<b>0.275</b>	
Spreaders	<b>2</b>	GO	<b>0.235</b>	MWT		
				MCG	<b>6.230</b>	

**FLOTATION AND STABILITY**

Calculation method	<b>Poles inclining</b>	SFFP	<b>0.861</b>	SAFP	<b>13.892</b>	W1	<b>150.0</b>	PD1	<b>508.6</b>	WD	<b>12.460</b>
Flotation Date	<b>24/05/2021</b>	FFM	<b>1.500</b>	FAM	<b>1.095</b>	W2	<b>150.0</b>	PD2	<b>506.0</b>	PLM	<b>9000.00</b>
Measurer		FF	<b>1.495</b>	FA	<b>1.105</b>	W3	<b>150.0</b>	PD3	<b>494.7</b>	GSA	<b>1.0</b>
Comment		LCFcl	<b>7.706</b>	LCFsh	<b>7.961</b>	W4	<b>150.0</b>	PD4	<b>501.7</b>	RSA	<b>1.0</b>
		SG	<b>1.0253</b>	HBI	<b>1.270</b>						

**INVENTORY**

<i>BALLAST</i>	<i>Id</i>	<i>Kind</i>	<i>Description</i>	<i>Weight</i>	<i>LCG</i>	<i>VCG</i>	<i>TCG</i>		
	B7		Fixed placa plomo 34x49x18cm	330	5.42	0.00			
	E7		Fixed placa plomo 40x17x10	75	5.42	0.00			
	<i>Fixed Ballast Total</i>			<b>405</b>					
<i>TANKS</i>	<i>Id</i>		<i>Description</i>	<i>Sp.Wght</i>	<i>Capacity</i>	<i>Condition</i>	<i>LCG</i>	<i>VCG</i>	
	C3		PETROLEO ACERO INOX CRUJIA POPA MOTOR	0.9000	125	<del>75</del>	11.25	0.20	
	B6		AGUA FLEXIBLE A BABOR DEBAJO PISO		150	0	6.52	0.20	
	C2		TERMOTANQUE ACERO INOX		35	0	10.69	0.20	
	E6		AGUA FLEXIBLE A ESTRIBOR DEBAJO PISO		150	0	6.52	0.20	
	<i>Total deductible</i>						<b>68</b>	<b>11.25</b>	<b>0.20</b>
<i>OTHER ITEMS</i>	<i>Id</i>	<i>Kind</i>	<i>Description</i>		<i>Weight</i>	<i>LCG</i>	<i>VCG</i>		
	B2	Miscellaneous	BOTELLA DE GAS POPA BABOR		2	10.65	0.70		
	E5	Battery	3 baterias 12 placas estribor		36	7.88	0.20		
	3A	Engine	YANMAR 48hp						
	<i>Total deductible</i>						<b>0</b>		

**MAINSAIL**

<i>Id</i>	<i>MHB</i>	<i>MUW</i>	<i>MTW</i>	<i>MHW</i>	<i>MQW</i>	<i>Area</i>	<i>Meas.Date</i>	<i>Maker</i>	<i>Material</i>	<i>Comment</i>
M-D	1.54	2.09	2.91	4.15	5.17	71.97	06/07/2022	QUANTUM	Dacron	

**HEADSAIL**

<i>Id</i>	<i>HHB</i>	<i>HUW</i>	<i>HTW</i>	<i>HHW</i>	<i>HQW</i>	<i>HLP</i>	<i>HLU</i>	<i>Btn</i>	<i>Flying</i>	<i>FT</i>	<i>Area</i>	<i>Meas.Date</i>	<i>Maker</i>	<i>Material</i>	<i>Comment</i>
C4	0.10	0.67	1.28	2.62	3.96	5.32	19.38	Yes	No		51.20	24/08/2011	QUANTUM	Carbon	FOQUE
JIB	0.08	0.70	1.35	2.70	4.12	5.55	18.60	Yes	No		51.10	06/07/2022	QUANTUM	Dacron	
STAYS/	0.06	0.64	1.25	2.47	3.64	4.85	18.43	No	No		45.14	02/10/2013	QUANTUM	Nylon	

**ASYMMETRIC SPINNAKER**

<i>Id</i>	<i>SLU</i>	<i>SLE</i>	<i>SL</i>	<i>SHW</i>	<i>SFL</i>	<i>Ratio</i>	<i>Area</i>	<i>Meas.Date</i>	<i>Maker</i>	<i>Material</i>	<i>Comment</i>
A2	21.54	17.73	19.64	11.35	11.35	100%	185.71	16/10/2013	QUANTUM	Nylon	
A1	21.16	17.99	19.58	10.56	11.05	96%	173.86	24/08/2011	QUANTUM	Nylon	
A0	20.42	18.24	19.33	8.00	10.59	76%	137.21	04/10/2013	QUANTUM	Nylon	